

ROXUL TOPROCK® DD PLUS

Flat Roof Insulation

Product Description & Application

ROXUL TOPROCK® DD PLUS is a dual density, bitumen coated, mineral wool insulation board for flat roofing applications

	Performance								Test Standard
Compliance	Standard Specification for Mineral Fiber Roof Insulation Boards								ASTM C726***
	Approval Standard for Single Ply, Polymer Modified Bitumen Sheet, Built-Up Roof and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction								FM 4470
	NCC (Non Combustible Core) Rated Roof Insulation								FM 4470
Reaction to Fire	Flame spread index = 0 ; Smoke developed index = 0								ASTM E84 (UL 723)
	Flame spread index = 0 ; Smoke developed index = 0								CAN/ULC S102
	Determination of Non Combustibility of Building Materials - Non Combustible								CAN/ULC S114
	Standard Method of Fire Tests for Determining Heat Release Rate of Roofing Assemblies with Combustible Above Deck Roofing Components - Class 1								NFPA 276
	Fire Tests of Roof Coverings - Class A								CAN/ULC S107-03
	Fire Spread under Roof Deck Assemblies - See ULC Directory								CAN/ULC S126-06
	Standard Test Methods for Fire Tests of Roof Coverings - Class A								UL 790 (ASTM E108)
Density	Fire Tests of Building Construction and Materials - See UL Directory								UL 263 (ASTM E119)
	Top Layer - 13.75 lb/ft³ (220 kg/m³), Bottom Layer - 10 lb/ft³ (160 kg/m³)								ASTM C303
Dimensional Stability	Linear Shrinkage - 0.71% @ 1200°F (650°C)								ASTM C356
	Linear Change 7 days @ 40°F (-40°C), ambient RH - 0.1%								ASTM D2126
	Linear Change 7 days @ 200°F (93°C), ambient RH - 0.1%								
	Linear Change 7 days @ 158°F (70°C), 97% RH - 0.0%								
Hail Performance	Test Standard for Susceptibility to Hail Damage - Class 1 - SH (Severe Hail)								FM 4470
	Impact Resistance by Impacting with Freezer Ice Balls - Class 4								FM 4473
	Impact Resistance of Prepared Roof Covering Materials - Class 4								UL 2218
Thermal Resistance	Mean Temperature	R-Value		RSI Value				ASTM C518 (C177)	
	75°F (24°C)	3.8 hr.ft2.F/Btu		0.68 m2K/W					
	25°F (-4°C)	4.3 hr.ft2.F/Btu		0.74 m2K/W					
	40°F (4°C)	4.2 hr.ft2.F/Btu		0.72 m2K/W					
	110°F (43°C)	3.6 hr.ft2.F/Btu		0.64 m2K/W					
Reaction to Moisture	Moisture Sorption - 0.15%								ASTM C1104
	Water Absorption - <1.0%								ASTM C209
	Water Vapor Transmission, Desiccant Method - 2330 ng/Pa.s.m2 (41 perm)								ASTM E96
Compressive Strength	Top Layer - 20psi (140kPa) @ 10%, 37psi (250kPa) @ 25%								ASTC C165
	Entire Board - 11psi (75kPa) @ 10%, 15psi (105kPa) @ 25%								
	Point Load @ 5mm Compression - 30psi (205 kPa)								EN 12430
Corrosion Resistance	Stress Corrosion Cracking Tendency of Austenitic Stainless Steel - Passed								ASTM C795
	Corrosion of Steel - Passed								ASTM C665
Thickness Dimensions	Product available in 2" - 6" (50.8mm - 152.4mm) in 1/2" (12.7mm) increments 48"x48" (1219mm x 1219mm)								
Acoustical Performance	Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000Hz	4000 Hz	NRC	ASTM C423
	2'	0.5	0.71	0.85	0.9	0.96	1.01	0.85	
	Contact ROXUL for STC rated assemblies								ASTM E90



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